

| L Number | Hits | Search Text  | DB    | Time stamp       |
|----------|------|--|-------|------------------|
| 16       | 3    | ((chip or die) and (crack or cracking or bulging or bulge)) near adhesive  | USPAT | 2003/04/07 01:49 |
| 17       | 3    | ((chip or die) and (bulging or bulge or crack or cracking)) near adhesive  | USPAT | 2003/04/07 03:19 |
| 18       | 492  | ((chip or die) with ((bend or bending or bulging or bulge or crack or cracking) and tape)) and adhesive  | USPAT | 2003/04/07 00:51 |
| 19       | 99   | ((chip or die) with ((bend or bending or bulging or bulge or crack or cracking) and tape)) and adhesive ) and (adhesive near (chip or die))  | USPAT | 2003/04/07 00:52 |
| 20       | 9    | ((chip or die) and (interposer or buffer)) near adhesive   | USPAT | 2003/04/07 01:03 |
| 21       | 411  | (chip or die) and (tape adj substrate)   | USPAT | 2003/04/07 01:04 |
| 22       | 39   | ((chip or die) and (tape adj substrate)) and ((crack or cracking or bulging or bulge or bend or bending) with (chip or die or semiconductor or device))  | USPAT | 2003/04/07 01:19 |
| 23       | 18   | ((chip or die) and (tape adj substrate)) and ((crack or cracking or bulging or bulge or bend or bending) with (chip or die or semiconductor or device))) and reflow                                      | USPAT | 2003/04/07 01:10 |
| 24       | 3984 | ((crack or cracking or bulging or bulge or bend or bending) near (chip or die or semiconductor or device))   | USPAT | 2003/04/07 02:46 |
| 25       | 60   | ((crack or cracking or bulging or bulge or bend or bending) near (chip or die or semiconductor or device))) and ((chip or die) near adhesive)  | USPAT | 2003/04/07 01:31 |
| 26       | 20   | ((crack or cracking or bulging or bulge or bend or bending) near (chip or die or semiconductor or device))) and ((chip or die) near adhesive)) and reflow  | USPAT | 2003/04/07 01:36 |
| 27       | 9    | ((crack or cracking or bulging or bulge or bend or bending) near (chip or die or semiconductor or device))) and ((chip or die) near adhesive)) and reflow) and moisture                                  | USPAT | 2003/04/07 01:46 |
| 28       | 1    | ("6541844").PN.  | USPAT | 2003/04/07 01:46 |
| 29       | 31   | ((crack or cracking or bulging or bulge or bend or bending) and substrate) near (polyimide or tape)  | USPAT | 2003/04/07 01:56 |
| 30       | 22   | ((crack or cracking or bulging or bulge or bend or bending) and substrate) near (polyimide or tape)) and (@ad<19980728)  | USPAT | 2003/04/07 02:37 |
| 31       | 9    | ((crack or cracking or bulging or bulge or bend or bending) and substrate) near (polyimide or tape)) and (@ad<19980728)) and (chip or die)   | USPAT | 2003/04/07 01:54 |
| 32       | 4    | ("5898213"   "5951304"   "6232650"   "6285086").PN.  | USPAT | 2003/04/07 01:53 |
| 33       | 1299 | (chip or die) and ((tape or polyimide) near substrate)   | USPAT | 2003/04/07 01:55 |
| 34       | 903  | ((chip or die) and ((tape or polyimide) near substrate)) and (@ad<19980728)  | USPAT | 2003/04/07 02:48 |
| 35       | 206  | ((chip or die) and ((tape or polyimide) near substrate)) and (@ad<19980728)) and ((chip or die) near ((tape or polyimide) or substrate))   | USPAT | 2003/04/07 01:56 |
| 36       | 71   | ((chip or die) and ((tape or polyimide) near substrate)) and (@ad<19980728)) and ((chip or die) near ((tape or polyimide) or substrate))) and (crack or cracking or bulging or bulge or bend or bending) | USPAT | 2003/04/07 01:57 |

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| 37 | 22   | (((((chip or die) and ((tape or polyimide) near substrate)) and (@ad<19980728)) and ((chip or die) near ((tape or polyimide) or substrate))) and (crack or cracking or bulging or bulge or bend or bending)) and reflow                             | USPAT   | 2003/04/07<br>02:06 |
| 38 | 1    | ("5261593").PN.   | USPAT   | 2003/04/07<br>02:11 |
| 39 | 0    | ("L36 and (solder adj ball\$2)").PN.  | USPAT   | 2003/04/07<br>02:11 |
| 40 | 25   | (((((chip or die) and ((tape or polyimide) near substrate)) and (@ad<19980728)) and ((chip or die) near ((tape or polyimide) or substrate))) and (crack or cracking or bulging or bulge or bend or bending)) and (solder adj ball\$2)               | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>02:12 |
| 41 | 22   | (((((chip or die) and ((tape or polyimide) near substrate)) and (@ad<19980728)) and ((chip or die) near ((tape or polyimide) or substrate))) and (crack or cracking or bulging or bulge or bend or bending)) and (solder adj ball\$2)) and adhesive | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>02:34 |
| 42 | 122  | (chip or die) and ((tape or polyimide) near (interposer or buffer))   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>02:36 |
| 44 | 2    | ((((chip or die) and ((tape or polyimide) near (interposer or buffer))) and (solder adj ball)) and (@ad<19980728))  | USPAT   | 2003/04/07<br>02:37 |
| 43 | 20   | ((chip or die) and ((tape or polyimide) near (interposer or buffer))) and (solder adj ball)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>02:48 |
| 45 | 3994 | ((crack or cracking or bulging or bulge or bend or bending) near (prevent or eliminate or stop)) and (chip or die or device)  | USPAT   | 2003/04/07<br>02:51 |
| 46 | 3296 | ((crack or cracking or bulging or bulge or bend or bending) near (prevent or eliminate or stop)) and (chip or die or device)) and (@ad<19980728)  | USPAT   | 2003/04/07<br>02:48 |
| 47 | 18   | ((((crack or cracking or bulging or bulge or bend or bending) near (prevent or eliminate or stop)) and (chip or die or device)) and (@ad<19980728)) and (solder adj ball) and adhesive  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>02:48 |
| 48 | 15   | ((crack or cracking or bulging or bulge or bend or bending) and (tape or polyimide)) near (prevent or eliminate or stop)) and (chip or die or device)   | USPAT   | 2003/04/07<br>03:10 |
| 49 | 1    | ("5917234").PN.   | USPAT   | 2003/04/07<br>03:11 |
| 50 | 2    | ("10173303").PN.  | JPO;<br>DERWENT   | 2003/04/07<br>03:11 |
| 51 | 49   | (tape or polyimide) near (substrate and (permeability or permeable or porous or matrix or comb))  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>03:18 |
| 52 | 10   | ((tape or polyimide) near (substrate and (permeability or permeable or porous or matrix or comb))) and (chip or die)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>03:14 |
| 53 | 4    | (tape or polyimide) near (substrate and (permeability or permeable ))   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/07<br>03:18 |

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|----|-----|---|--|---------------------|
| 54 | 306 | (tape or polyimide) with (substrate and (permeability or permeable ))   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB<br>USPAT | 2003/04/07<br>03:19 |
| 55 | 7   | ((tape or polyimide) with (substrate and (permeability or permeable ))) and ((chip or die) and (bulging or bulge or crack or cracking)) |  | 2003/04/07<br>03:19 |